

REMARKS

Favorable reconsideration of this application is respectfully requested in light of the following remarks. Currently, Claims 1-25 are pending in the present application.

As an initial matter, Applicants express gratitude to Examiner Weeks for the courtesies extended Applicants' attorney during the recent telephone interview. During the interview, Applicants provided arguments as to why Claims 1 and 11 were not anticipated by *Hetzler et al.* Examiner Weeks appeared to agree with the arguments, and will reconsider the arguments.

Claims 1-25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,033,129 to *Hetzler et al.*

The present invention, as defined in independent Claim 1, pertains to a hydraulic system for mining equipment comprising at least one hydraulic circuit with pressure fluid channels and at least one hydraulic pump. The hydraulic pump is arranged to generate hydraulic power in the hydraulic circuit. At least one power unit drives the hydraulic pump. At least one hydraulic mining actuator is connected to the hydraulic circuit and configured to act on a tool in the mining equipment. At least one hydraulic auxiliary actuator connects to the hydraulic circuit. Means for adjusting the hydraulic power are led to the mining actuator and the auxiliary actuator connected to the hydraulic circuit. The hydraulic system comprises a main hydraulic circuit and at least one separate hydraulic circuit. The main hydraulic circuit and each separate hydraulic circuit are separate from each other, each having a separate hydraulic pump for generating hydraulic power. At least one mining actuator is connected to the separate hydraulic circuit and the mining actuator is configured to be driven by the hydraulic power acting in the separate hydraulic circuit. The power of the mining actuator connected to the separate hydraulic circuit is arranged

to be adjusted by adjusting the hydraulic power generated by the hydraulic pump comprised by the separate hydraulic circuit. Independent Claims 19-21 and 23 recite similar features.

Independent Claim 11 defines a method of adjusting the power of a rock drill machine, the rock drill machine comprising at least the following drilling actuators: a percussion device a rotation device and a feed device of which at least one is connected to a hydraulic circuit method comprising: generating hydraulic power in said hydraulic circuit with at least one hydraulic pump; driving the drilling actuator connected to the hydraulic circuit by the hydraulic power acting in the hydraulic circuit; adjusting the power of the drilling actuator connected to the hydraulic circuit by adjusting the hydraulic power to be fed to the drilling actuator; and adjusting the power of the drilling actuator connected to the hydraulic circuit mainly by adjusting the pumping output of the hydraulic pump. Independent Claims 22, 24, and 25 recite similar features.

Hetzler discloses a feed system for rotary drills. The feed control system of *Hetzler* includes four feed device modes, namely a first mode in which feeding of a drill is at a standard speed, a second mode in which feeding is at a regenerated rapid speed, a third mode in which retraction of the drill head is at a standard speed, and a fourth mode in which retraction is at a rapid speed (column 2, lines 42-47).

In *Hetzler*, there are two pulldown/hoist cylinders (11), which act simultaneously as an operational pair. The cylinders of *Hetzler* are both connected to the mutual hydraulic lines (15, 17). As it is clearly shown in the figures, hydraulic fluid is led to hydraulic lines (15) from the same supply line of the valve (22). The same applies also for hydraulic lines (17). As such,

Hetzler fails to disclose any operationally separate hydraulic circuits, as defined in independent Claims 1, 19-21 and 23.

Further, in *Hetzler*, there is a primary feed pump (10) and a secondary feed pump (20). There is also a primary control valve (18) and a secondary control valve (19). When operating at a standard speed, pressure fluid is led only from the primary pump (10) via the primary valve (18) to a line (28) and further via the valve (22) and common lines (15) to affect simultaneously on both of the cylinders (11). The rapid feed mode or the rapid retract mode of operation is selected by the secondary valve (19). As it is mentioned at column 4, lines 11-13 of *Hetzler*, the operation of the secondary valve (19) connects a supply line (26) of the second pump (20) through line (30) with a supply line (24) of the first pump (10). Further at column 4, lines 15-17, it is mentioned that the oil then pumped from supply line (26) combines with that being pumped through supply line (24). As such, in *Hetzler*, there are no separate hydraulic circuits, since the oil pumped by the pumps (10, 20) is combined and is thereafter directed via mutual pressure lines (15, 17) to the parallel cylinders (11). Accordingly, *Hetzler* fails to disclose the patentable features of independent Claims 1, 19-21 and 23.

Furthermore, the Examiner states that in *Hetzler*, the control valves (18, 19) are arranged to act as adjusting means in connection with the pumps (10, 20) for the purpose of adjusting the hydraulic power, speed, or flow generated by the pumps. However, the control valves (18, 19) are only directional valves, as it is mentioned at column 2, line 67 and on column 3, line 11 of *Hetzler*. The valves only direct the fluid flow generated by the pumps and they do not have any affect on the pumping output of the primary pump (10) or the secondary pump (20). To the contrary, it is mentioned at column 2, lines 65-66 and further at column 3, lines 9-10 of *Hetzler*,

that the pressure of the pumps (10 and 20) is adjusted by the operator, not by the valves of the feed control system. Accordingly, *Hetzler* fails to disclose the feature of "means for adjusting the hydraulic power to be led to the mining actuator and the auxiliary actuator connected to the hydraulic circuit", as defined in independent Claim 1, 19-21, and 23. *Hetzler* also fails to disclose the feature of "adjusting the power of the drilling actuator connected to the hydraulic circuit by adjusting the hydraulic power to be fed to the drilling actuator", as defined in independent Claims 11, 22, 24, and 25.

In addition, independent Claims 11, 22, 24 and 25 also recite a percussion device. In contrast, *Hetzler* only relates to a rotary drill, which does not include any percussion device. Accordingly, *Hetzler* fails to disclose the patentable features of independent Claims 11, 22, 24, and 25.

For at least the foregoing reasons, it is submitted that the method and device of independent Claims 1, 11, and 19-25, and the claims depending therefrom, are patentably distinguishable from the applied documents. Accordingly, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should any questions arise in connection with this application, or should the Examiner believe a telephone conference would be helpful in resolving any remaining issues pertaining to this application, it is respectfully requested that the undersigned be contacted at the number indicated below.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required,

including any required extension of time fees, or credit any overpayment to Deposit

Account 50-0573. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR
EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully Submitted,

Date: December 19, 2008
DRINKER BIDDLE & REATH LLP
Customer No. 55694
1500 K Street, N.W., Suite 1100
Washington, D.C. 20005-1209
Tel. No.: 202-842-8800
EPS:mk

By: Elaine P. Spector
Elaine P. Spector
Reg. No. 40,116
Attorney for Applicants
Tel. No.: (202) 842-8863
Fax No.: (202) 842-8465